

build. We have said many times before, and we reiterate, that physicians, medical schools, hospitals, nurses, and other organizations and persons dealing in the broader field of better health are missing many opportunities to permanently record information of value to the cause we are striving to serve. There are important meetings of one sort or another occurring with considerable frequency in different parts of our territory about which we have nothing to say because we cannot secure the information. All members of the California, Utah and Nevada Medical Associations, public health officers, and other persons engaged in medical work are again cordially invited and requested to send news items of any movement of general interest in the broad field of medicine and health.

ORAL ABSORPTION OF DRUGS

If oral absorption were dependable, it would be convenient for the administration of many drugs; such as epinephrine, pituitary extract, insulin, and others that are rendered inactive in the stomach and intestines; cyanide in respiratory resuscitation; digitaloid preparations and others that are apt to cause nausea and vomiting, etc. It would be desirable with drugs whose dosage is very small, and convenient for giving drugs to infants and children. The fact is that the oral absorption of most drugs in man is poor and irregular. These qualities are apt to be disturbing, for serious poisoning from cocaine and related local anesthetics occurs from time to time. It may be said that only one drug, namely, nitroglycerine, is absorbed promptly and regularly from the mouth. However, ordinary applications in the mouth are apt to involve the tongue, and this organ has a good absorbing surface for nitroglycerine, as indicated previously in these columns.

Confirmation of the fact that oral absorption is poor in man has been obtained recently by Bachem of the Pharmacological Institute in Bonn. Bachem studied the absorption of tincture of iodine and salicylic acid. No iodide was demonstrable in the urine, and only a trace of salicylate. The application of alcoholic solutions of these agents gave no better results, because the alcohol caused marked salivary secretion which probably washed away the agents and prevented absorption. On the other hand, in urethanized rabbits with ligated oesophagus, the oral application of tincture of iodine, salicylic acid, carbolic acid, morphine, strychnine, antipyrine and veronal resulted in the appearance of iodide and salicylate in urine, convulsions after carbolic acid and strychnine, and slowing of respiration and depression after morphine and veronal. In some instances the symptoms developed with great rapidity. However, these results are not transferable to man, at least, for therapeutic purposes.

If anything, such results indicate the desirability of further study of absorption in man, as it is obviously a function of great concern to the physician. This was emphasized last year by Eggleston of New York in his address before the Section of Pharmacology and Therapeutics of the American Medical Association in San Francisco. For notwithstanding the negative results of oral absorption in man, as far

as absence of marked and relatively gross effects are concerned, the possibility remains that certain desirable and important agents might be absorbed in very small quantities from the mouth and produce physiological effects. A notable instance of drug action from almost infinitesimal absorption is the alteration in function and morphology of the thyroid gland from the application of minute quantities of iodine to the skin and other regions without the demonstrable appearance of iodide in urine and other secretions, as shown by the brilliant researches of Marine and his co-workers.

Bachem, C.—Arch. Exp. Path. Pharm., 1924, 101:127, "Über Resorption von Arzneimitteln in der Mundhöhle."
 Eggleston, C.—Journ. Am. Med. Assoc., 1923, 81:431, "The Absorption of Drugs."
 Marine, D. et al.—J. Pharm. Exp. Therap., 1916, 7:557; Ibid 1916, 8:439; J. Biol. Chem., 1915, 22, No. 3. Absorption of Iodide by Thyroid Glands, etc.

OCCUPATIONAL DISEASES

One of the most interesting and far-reaching developments in medicine today, and particularly in medicine of tomorrow, is the ever-growing list of diseases classed as "occupational" and thereby coming under the control of Industrial Accident laws.

A bill now pending before the New York legislature lists occupational diseases: Anthrax, lead, zinc, mercury, phosphorus and arsenic poisoning or their sequelae; poisoning by wood alcohol; poisoning by any of the benzene group products; poisoning by carbon bisulphide or its sequelae; poisoning by nitrous fumes or its sequelae; poisoning by nickel carbonyl or its sequelae; poisoning by tetrachlor-methane or any substance used as, or in conjunction with a solvent for acetate of cellulose; poisoning by chlorine, bromine, or iodine derivatives of petroleum products, including carbon tetrachloride, tetrachlorethane, methyl bromide or its sequelae; poisoning by formaldehyde and its preparations; chrome ulceration or its sequelae; epitheliomatous cancer or ulceration of the skin or the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil, paraffin, or any compound product or residue of any of these substances; glanders; compressed air illness or its sequelae; miners' diseases, including only cellulitis, bursitis, ankylostomiasis, tenosynovitis and nystagmus; cataract in glass workers; poisoning by gasoline, benzine, naphtha or other volatile petroleum products, or its sequelae; infection or inflammation of the skin on contact surface due to oils, cutting compounds or lubricants, or due to dust, liquids, fumes, gases, or vapors; silicosis (fibroid phthisis due to inhaling siliceous dust), or its sequelae.

If all the items on this list are included for sufficient reasons, as most of them appear to be, any physician can readily picture as many more that we may expect to see on lists within the next few years.

Each new disease that is set up as "occupational" swings in under these laws another large block of citizens who will be doctored and compensated by the state. A few more steps and we will have state medicine. We are not at this time discussing the merits of the situation, but simply calling the attention of physicians to facts so that the final halter won't be slipped over on the blind side. Medicine will be well scrambled when the largest share of it